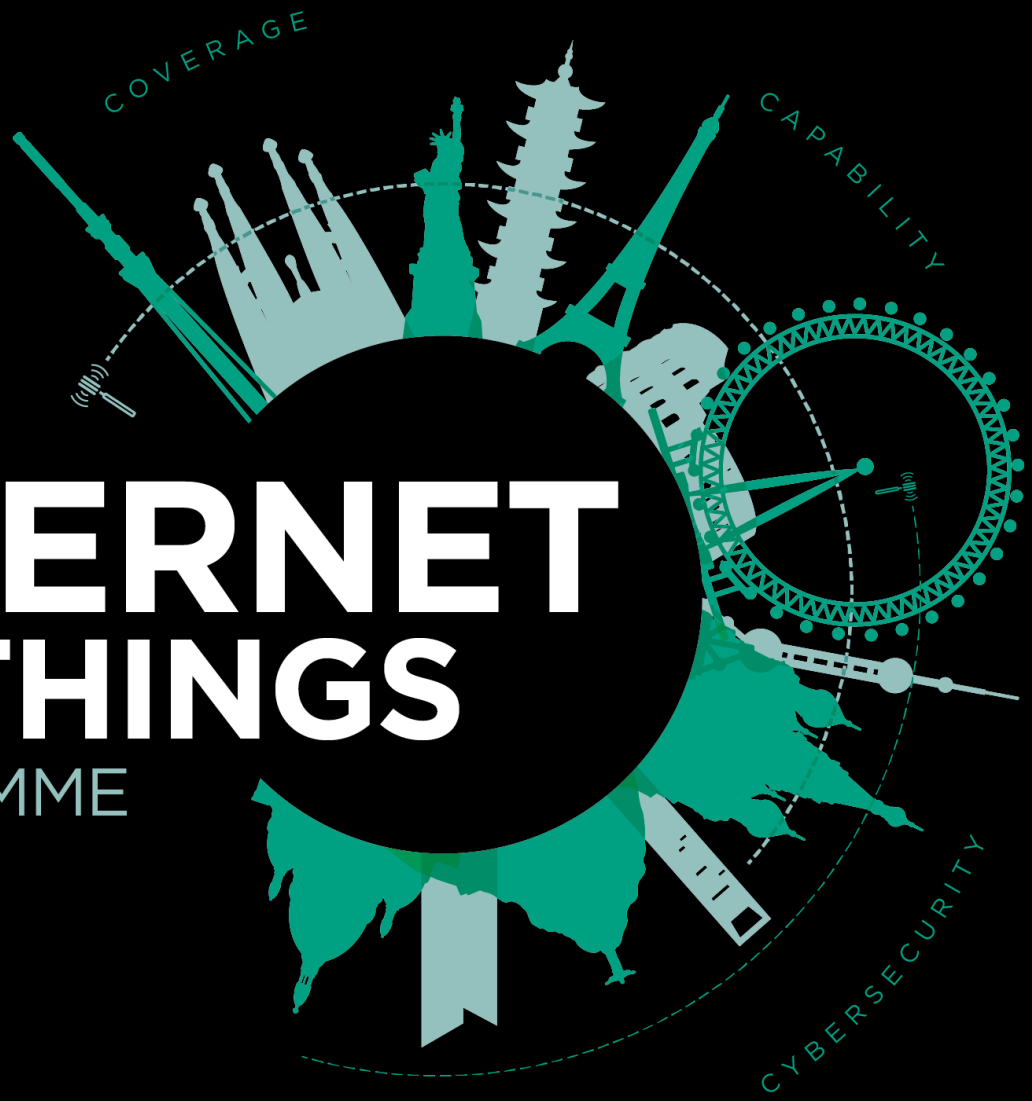


GSMA

INTERNET OF THINGS

PROGRAMME

SCALING THE IoT

Enabling a world in which consumers and businesses enjoy rich new services, connected by intelligent and secure mobile networks

THE GSMA

14 OFFICES WORLDWIDE

SHANGHAI · SAN FRANCISCO · BEIJING · NAIROBI · NEW DELHI

LONDON · DUBAI · ATLANTA · BRUSSELS · BARCELONA · HONG KONG · BRASILIA · BUENOS AIRES

Intelligently Connecting Everyone and Everything to a #BetterFuture

The mobile industry is the first to formally commit to the UN Sustainable Development Goals

nearly **9.3 bn** MOBILE CONNECTIONS WORLDWIDE (including IoT)

The GSMA represents the interests of mobile operators worldwide

MORE THAN **750** MOBILE OPERATORS

WITH NEARLY **400** COMPANIES in the broader mobile ecosystem

Driving industry programmes that add value to the digital economy

The GSMA works to deliver a regulatory environment that creates value for consumers by engaging regularly with:

- MINISTRIES OF TELECOMS
- TELECOMS REGULATORY AUTHORITIES
- INTERNATIONAL & NON-GOVERNMENTAL ORGANISATIONS

The world's leading mobile industry events, MWC Barcelona, MWC Los Angeles, MWC Shanghai and the Mobile 360 Series, together attract nearly

200,000

people from across the globe each year

INTERNET OF THINGS PROGRAMME

Scaling the IoT

OUR VISION: To enable the Internet of Things, a world in which consumers and businesses harness a host of rich new services, connected by intelligent and secure mobile networks.

CONNECT

Mobile IoT

Raise market awareness and support of commercial licensed spectrum LPWA Solutions.

CAPABILITY

Beyond Connectivity

Promote value added services including big data, machine learning, analytics, edge computing and distributed ledger technologies.

CUSTOMERS

Industry Engagement

Working with partners to align strategy and adopt new initiatives, specifically for connected vehicles and drones.

IoT SECURITY

Enabling a trusted IoT where security is embedded at every stage of the IoT value chain.

IoT POLICY & REGULATION

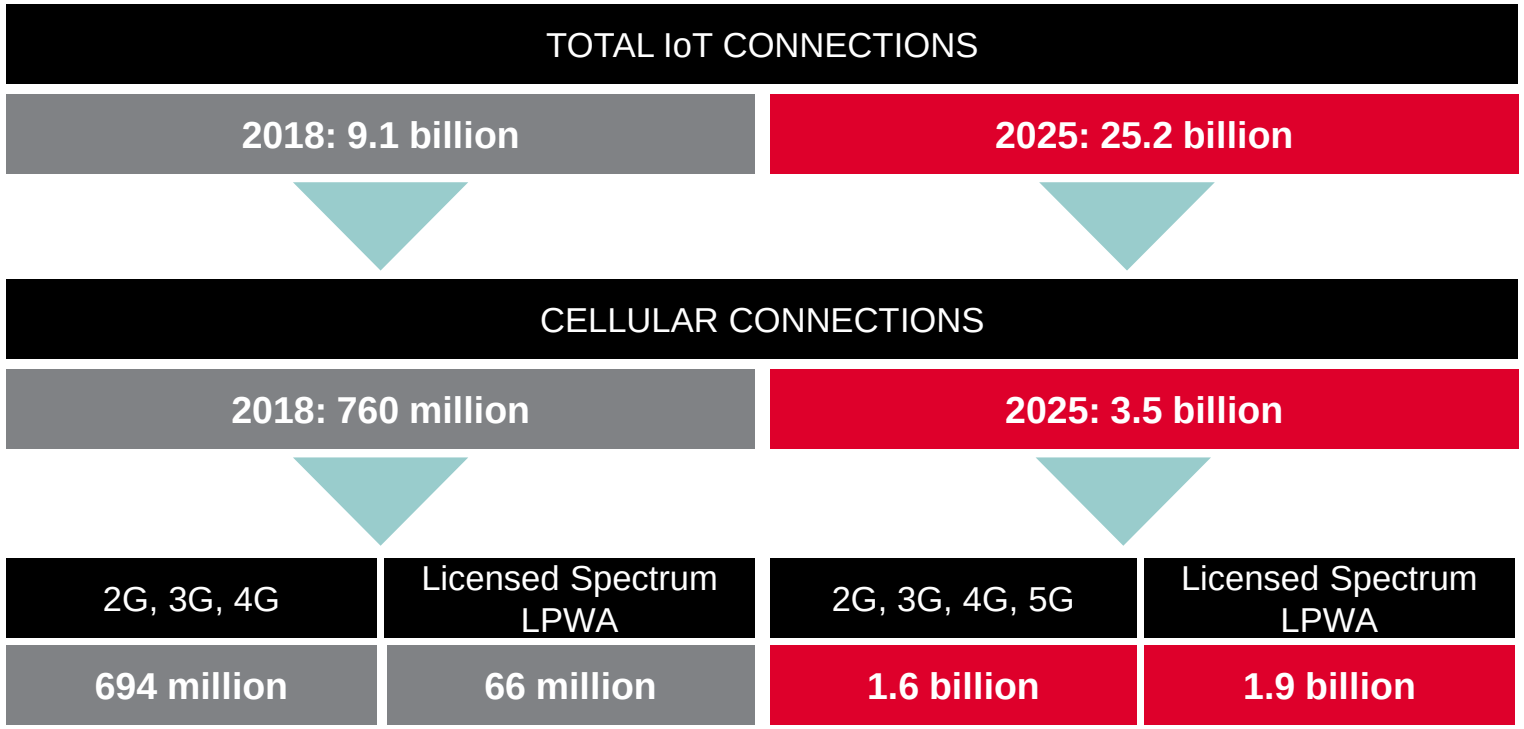
Creating a sustainable environment to support the successful scaling of the IoT.

MEMBERS OF THE IOT PROGRAMME STEERING GROUP:

AT&T · 中国移动 China Mobile · 中国电信 China Telecom · China Unicom 中国联通 · T-Mobile · KDDI · kt · MTC · orange · Telefónica · telenor · TURKCELL · vodafone

GSMA
Scaling the Market with Mobile IoT
Enabling the Connected Future

25 BILLION CONNECTED DEVICES



IN SELECTED VERTICAL SECTORS

Smart Cities: **1 billion**

Connected Industry: **12.5 billion**

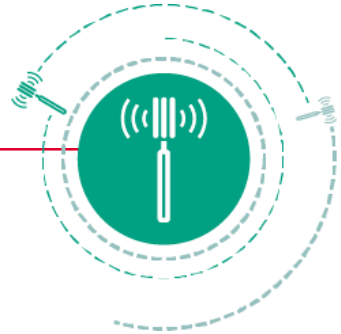
Connected Vehicles: **1.2 billion**

Consumer Electronics: **3.4 billion**

Smart Home: **5.4 billion**

Source: GSMA Intelligence, 2019

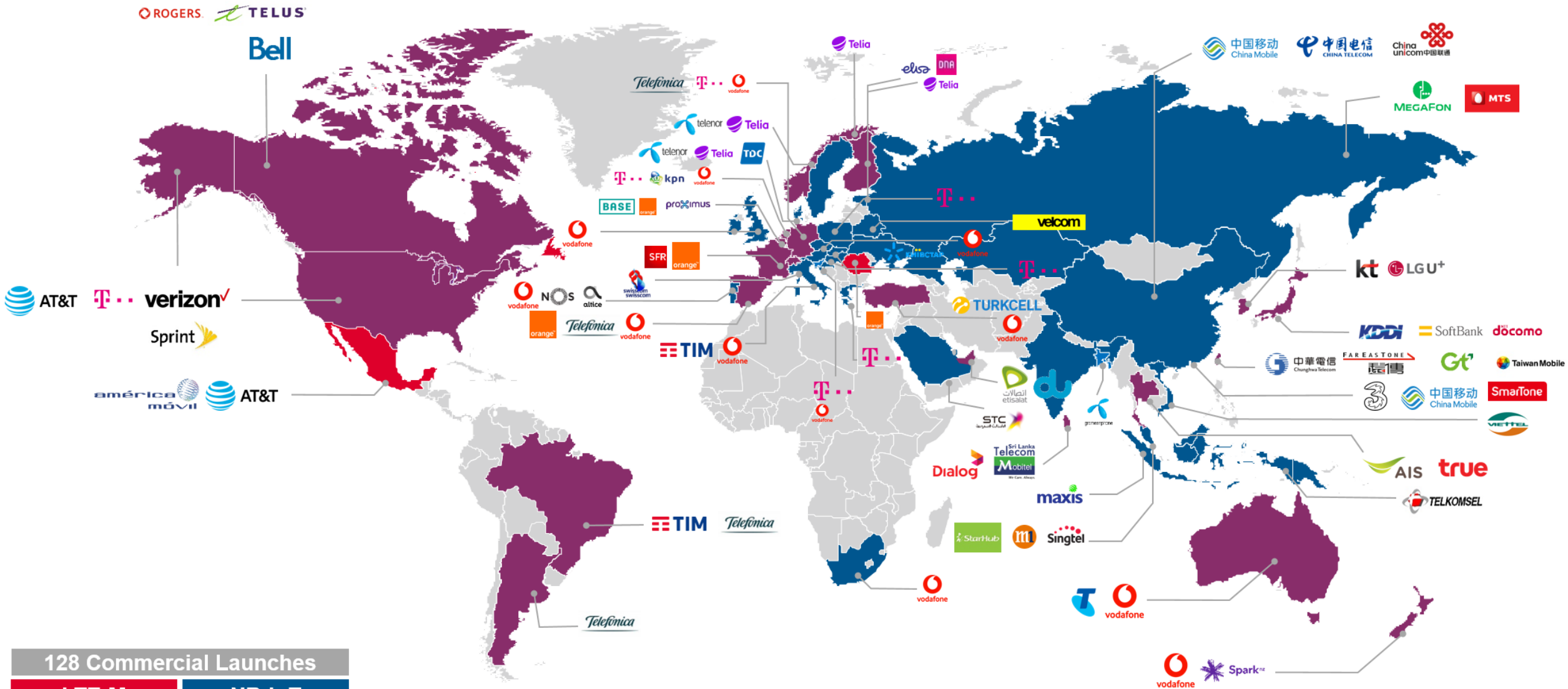
MOBILE TECHNOLOGY



IDEAL SOLUTION FOR LOW POWER WIDE AREA (LPWA)

KEY FEATURES	KEY BENEFITS		CHOICE OF TECHNOLOGIES
Low Cost Module	3GPP Standards	Global Coverage	LTE-M
Better Coverage	Secure	Scalable	NB-IoT
Long Battery Life	Integral Part of 5G: complimentary technologies	Long-Term Status: 3GPP has confirmed Mobile IoT to evolve with 5G standard	
Low Data Needs			
2-Way Communication			

MOBILE IoT GLOBAL COVERAGE



MOBILE IoT IS A PART OF 5G

LTE-M and NB-IoT, as deployed today, are part of the 5G family	→ Fulfils 5G requirements for Massive IoT
LTE-M and NB-IoT will continue to co-exist alongside other 5G components	→ Can be deployed as part of a 5G network
LTE-M and NB-IoT can operate in a 5G NR band	→ Enables smooth operator migration path to 5G NR bands

THE VOICE OF A VIBRANT AND FAST-GROWING ECOSYSTEM

MOBILE IoT INNOVATORS
1500+ companies

EVENTS
Showcases, Meet-Ups, Q&As

NEWSLETTERS
Monthly briefings on the latest news, case studies, market developments

GSMA SUPPORT
90+ MNOs and Vendors

RESOURCES
Modules, Development Kits, Resource Library

DIRECTORY
The official industry index for companies working with LPWA technologies in licensed spectrum

ASK THE MOBILE IoT EXPERTS
Access to leading industry experts and Mobile IoT pioneers

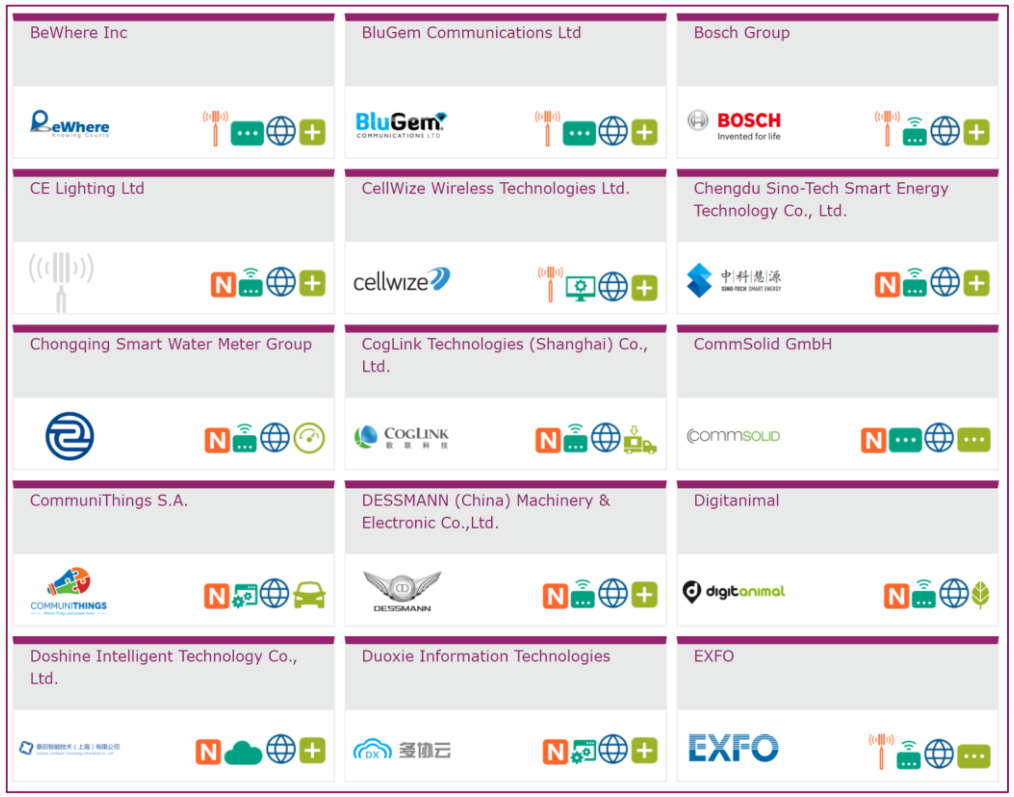
Mobile IoT Innovators membership is free and open to all developers and companies interested in Mobile IoT technologies.

gsma.com/mioti

GSMA MOBILE IoT INNOVATORS

MOBILE IoT INNOVATORS DIRECTORY

- Exclusive promotional opportunity for members of the GSMA Mobile IoT Innovators
- Detailed information including target market, industry verticals, company profile, contact details
- Increased exposure to mobile operators and the wider ecosystem, helping to create new business and revenue opportunities in the Mobile IoT market



GSMA MOBILE IoT INNOVATORS

IoT Security by Design

Securing the Connected Future

Regulatory Push for IoT Security – Applying Pressure to Developers

IoT SECURITY GUIDELINES AND ASSESSMENT

Available in:

SECURITY PRINCIPLES

Security by Design
Privacy by Design
End to End
Across the lifetime
Evaluate Technical Model

Review Security Model
Assign Security Tasks
Review Component Risk
Implementation
Ongoing Lifecycle
Worked Examples

IoT SECURITY GUIDELINES

IoT SECURITY GUIDELINES **FOR SERVICE ECOSYSTEMS**

IoT SECURITY GUIDELINES **FOR ENDPOINT ECOSYSTEMS**

IoT SECURITY GUIDELINES **FOR NETWORK OPERATORS**

DETAILED CONTROL STATEMENTS

IoT SECURITY ASSESSMENT

Referenced By: enisa, Department for Digital, Culture Media & Sport, NIST, World Economic Forum, ETSI

GSMA IoT SECURITY GUIDELINES

Over 200
pages of advice and best practice to secure devices, service platforms and networks

85 detailed recommendations

12 principal attack models

IoT Security Assessment checklist

3 ‘worked’ examples – **wearables, personal drone, automotive**

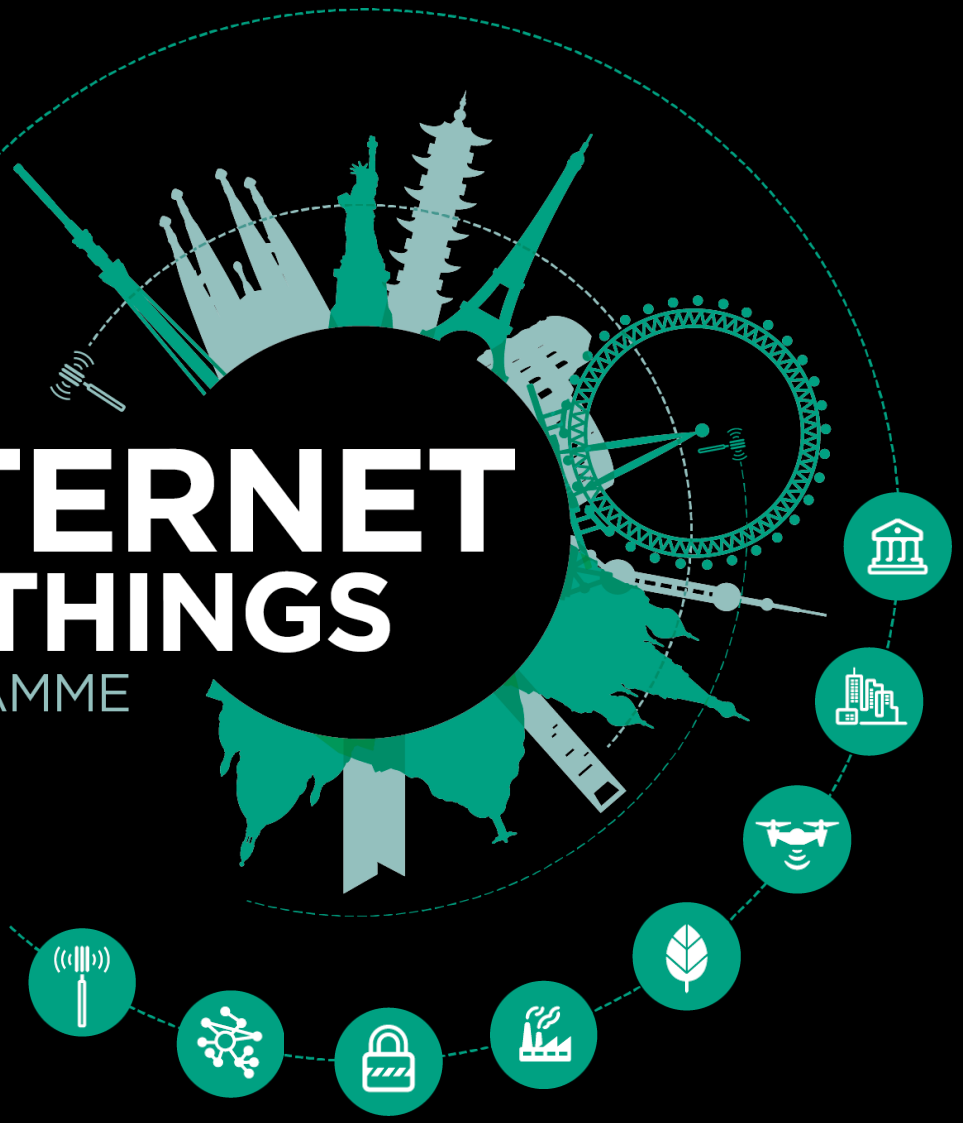
Risk and privacy impact assessments

Supported by:

GLOBALPLATFORM THE STANDARD FOR SECURE DIGITAL SERVICES AND DEVICES
GSA
IoTA IoT Alliance Australia
IoT WORLD ALLIANCE
MEF MOBILE ECOSYSTEM FORUM
oneM2M
simalliance Security | Identity | Mobility

GSMA

GSMA INTERNET OF THINGS PROGRAMME



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